



Appl. No. 10/665,910

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Reply to Office Action of February 2, 2005

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (withdrawn) A thin-film magnetic head comprising:
magnetic layers each containing two or more elements of Co, Ni, and Fe;
wherein a magnetic layer, of said magnetic layers, contains Co, Ni, and Fe,
with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and has a saturation
magnetic flux density of 23,000 gauss or more, and the thickness of said magnetic layer is
 $3\mu\text{m}$ or more.
2. (canceled)
3. (previously presented) A process for production of a thin-film
magnetic head as defined in claim 1, wherein the magnetic layers are formed in a plating bath
containing saccharin sodium as a stress relaxing agent.
4. (original) A process for production of a thin-film magnetic head as
defined in claim 3, wherein the plating bath contains saccharin sodium in an amount of 0.5-2
g/L.
5. (withdrawn) A thin-film magnetic head of write-read separate type in
which a read element is a magneto-resistive effect element and a write element is an
inductive magnetic head,
wherein upper and lower magnetic cores of a write head partly or entirely have
magnetic layers consisting of magnetic films each containing two or more elements of Co,
Ni, and Fe, a magnetic layer, of the magnetic layers, is composed of a magnetic film, which is
a soft magnetic thin film containing CoNiFe, with $20 \leq \text{Co} \leq 40 \text{ wt\%}$, $0 < \text{Ni} \leq 2 \text{ wt\%}$, and
 $60 \leq \text{Fe} \leq 80 \text{ wt\%}$, and having a saturation magnetic flux density of 23,000 gauss or more,
and the thickness of the magnetic layer is $3\mu\text{m}$ or more.

6. (withdrawn) A thin-film magnetic head as defined in claim 1, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.

7. (withdrawn) A thin-film magnetic head as defined in claim 5, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.

8. (previously presented) A method for producing a thin-film magnetic head, comprising:
forming a magnetic core having magnetic layers; and
forming a magnetic gap film facing said magnetic core;
wherein a magnetic layer, of said magnetic layers, is formed by electroplating in a plating bath having pH value of 2 or less;

wherein said magnetic layer contains Co, Ni, and Fe, with $20 \leq \text{Co} \leq 40$ wt%, $0 < \text{Ni} \leq 2$ wt%, and $60 \leq \text{Fe} \leq 80$ wt%, and has a saturation magnetic flux density of 23,000 gauss or more.

9. (previously presented) A method for producing a thin-film magnetic head as defined in claim 8, wherein said magnetic core includes an upper magnetic core and a lower magnetic core.

10. (previously presented) A method for producing a thin-film magnetic head as defined in claim 9, wherein either of said upper magnetic core or said lower magnetic core has said magnetic layer.

11. (previously presented) A method for producing a thin-film magnetic head as defined in claim 8, wherein said magnetic layer is the nearest layer to said magnetic gap of said magnetic layers.